The Afghanistan Engineering Support Program assembled this deliverable. It is an approved, official USAID document. Budget information contained herein is for illustrative purposes. All policy, personal, financial, and procurement sensitive information has been removed. Additional information on the report can be obtained from Firouz Rooyani, Tetra Tech Sr. VP International Operations, (703) 387-2151.

New Fire Doors Inspection Report	Project: **WO-LT0082AMD2 Sardar Kabuli Girls' High School Fire Door Replacement QA Services**
Location: **Dar-ul-aman Road, Qala-e-Raees, Kabul, Afghanistan**	Contract Number: **AID-306-TO-15-00014**
Inspection Date: **May 23, 2016**	Coordinates: Latitude: **34.484997 N°** Longitude: **69.137351 E°**
Inspectors: [redacted] / Status: **N/A**	Weather: **Sunny (20 °C)**

PRESENTED TO

United States Agency for International Development (USAID)
Office of Economic Growth and Infrastructure (OEGI)

Kabul, Afghanistan

PRESENTED BY

Tetra Tech, Inc.
Afghanistan Engineering Support Program
Contract No. EDH-I-00-08-00027-00
Task Order No. 1

Kabul, Afghanistan

Tt Prepared by:

[redacted]

Name: [redacted] Date:
Title: **Project Engineer** **05/28/2016**

[redacted]

Name: H[redacted] Date:
Title: **Quality Assurance Advisor** **05/28/2016**

EXECUTIVE SUMMARY

The fire doors' replacement project of Sardar Kabuli Girls' High School (SKGHS) is located on Dar-ul-aman Road at Qala-e-Raees, approximately 2.5 km north of the Dar-ul- aman Palace in Kabul, Afghanistan.

Under a cooperative agreement with United Nations Office for Project Services (UNOPS), a USAID contractor has completed the construction of the SKGHS. At the final inspection, the installed 23 fire-rated doors were found to not be in accordance with National Fire Protection Association (NFPA-80) and the contract specifications, and thusly, these fire doors were not accepted as part of the SKGHS final construction, even though they were installed and in full operation. The original building contractor was compensated for all accepted final inspected building construction, except for the 23 fire door units.

A different USAID-approved contractor (Perez) has been contracted to replace the 23 previously installed door units with approved NFPA-80 fire-rated door units.

Tetra Tech (Tt) has been assigned to perform Quality Assurance (QA) Services for the installation of the new doors provided for SKGHS and to be installed by Perez. Tt shall verify that the items are in compliance with the approved product submittals, with the original school building designs, per the International Building Code (IBC) and life safety code NFPA-80.

This report details the recent site visit by Tetra Tech engineers to the Sardar Kabuli Girls' High School (SKGHS) to observe the new fire doors received from USA.

No Construction activities were observed during this site visit.

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1.0 INTRODUCTION

The Sardar Kabuli Girls' High School is located at Qala-e-Raees, Dar-ul-aman Road, District 7, Kabul, Afghanistan. This project includes provision and installation of 23 NFPA-80 fire rated doors with all minor and major elements having a fire rating of 90-180 minutes. Tetra Tech (Tt) Afghanistan Engineering Support Program (AESP) performs Quality Assurance (QA) Monitoring and Evaluation Services for the Sardar Kabuli Girls' High School Project.

This report documents existing site conditions on May 23, 2016.

2.0 SITE VISIT TO INSPECT FIRE DOORS

Prior to this recorded doors visit for observation, the project lead and the concerned QA engineer from Tt AESP reviewed all product submittals and the shop drawings related to the doors, frame and hardware for the SKGHS fire doors, and developed a checklist for all aforementioned products with the specifications outlined under the submitted documents.

On May 23, 2016, Tetra Tech was informed the doors had been delivered on site. Two engineers performed a site visit on May 23, 2016 to confirm that the doors met or exceeded the approved contract specifications. The doors were reviewed for delivered condition, source and proof of conformance with the relevant UL standards. Tetra Tech photographed the new doors, as well as the ancillary components for documentation and reporting to USAID.

The Tt engineers were accompanied by a Perez project manager during the site visit. The findings and observations of the site visit are documented in this report, including photo-documentation provided in the photographs section.

During the site visit, the Tetra Tech engineers discussed the demolition, construction activities and the construction schedule with the Perez project manager.

3.0 FIRE DOORS INSPECTION DETAILS:

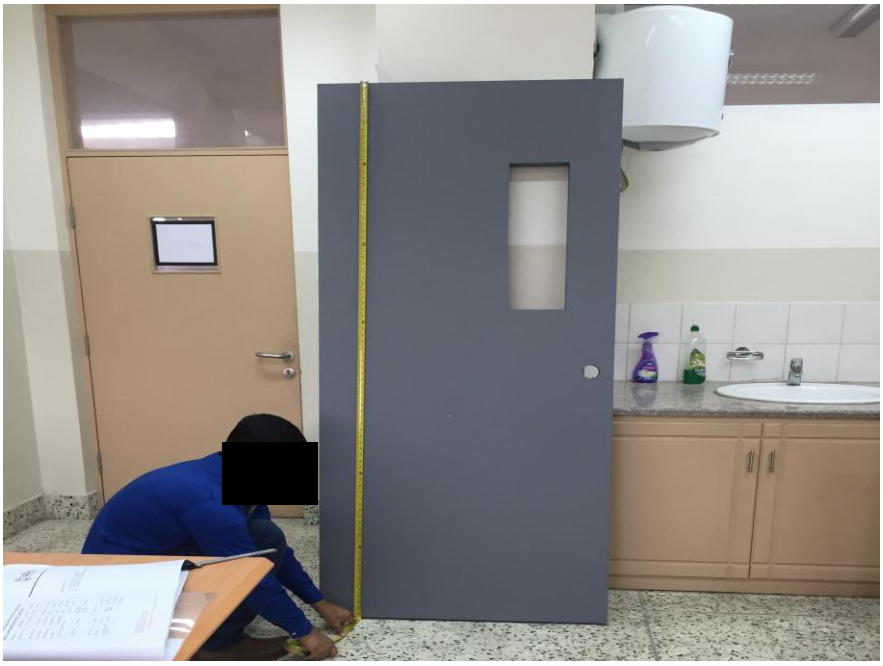
The observations recorded during the site visit are provided below:

1. There are 24 doors bought (one as spare, saved in case of unexpected damage). They were transported to the site on May 22, 2016.
2. Only one sample of the door unit with the related ancillary components was unpacked for examination. The remaining stock were stored at the yard of school, covered with wooden boxes and plastic sheets.
3. Each component of a door unit was separately unpacked and checked in order to make sure they meet the specifications outlined under the certificate of compliance provided in the manufacturer's product submittals and the Underwriter Laboratory (UL) specifications.
4. All of the checked components of door (door panels, door frame, door closures, handle sets, panic hardware, heavy weight hinges, and vision light frame…etc.) were tested and approved by a UL Standard Certification Company as the components were labelled with a UL mark.
5. The overall condition of new doors are good and meet the design requirements since the one checked sample was meeting the preapproved submitted specifications.
6. The new doors, as well as the frame height, width and thickness, vision lite and its frame size were measured for conformance to the preapproved drawing specification submitted to Tetra Tech. All checked components met the requirements.
7. The hardware for the new door units contained the following elements:
    a. Hollow metal door
    b. Metal frame

c. Perimeter gasket
d. Meeting stile astragal
e. Door closures
f. One panic hardware set- vertical rod exit device
g. One handle set
h. One vertical integrated door stop with sleeve in floor
i. Heavy weight hinges (3 ea. Leaf)
j. One active door astragal
k. Vision light
l. Vision Light frame

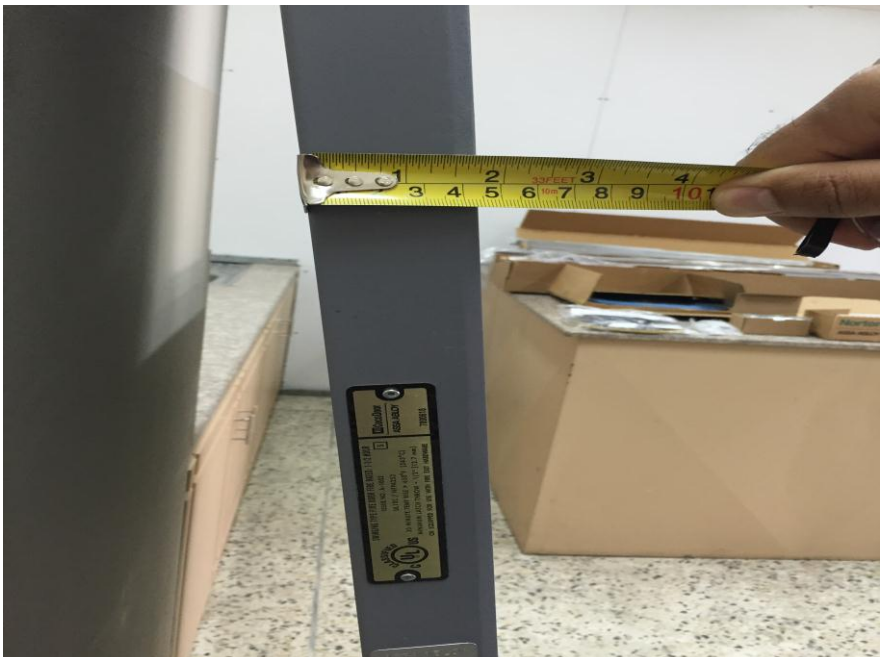
8. The new fire doors do not include locks/keys since it is not in their manufacturing requirement.
9. The new door units are designed with three required hinges per door panel (as opposed to four hinges for the existing doors). Therefore, when the new doors are installed, there will be one empty hinge location.
10. All door panels are going to be hung and swing in the correct directions per the drawings.
11. Tetra Tech engineers could not observe the Anemostat vision light/ glasses of the doors because they were packed in order to avoid breakage.

4.0 PHOTOGRAPHS



Photograph-1: Hollow metal door height measurement by Tt QA Engineer.

Photograph-1: Hollow metal door width measurement by Tt QA Engineer.

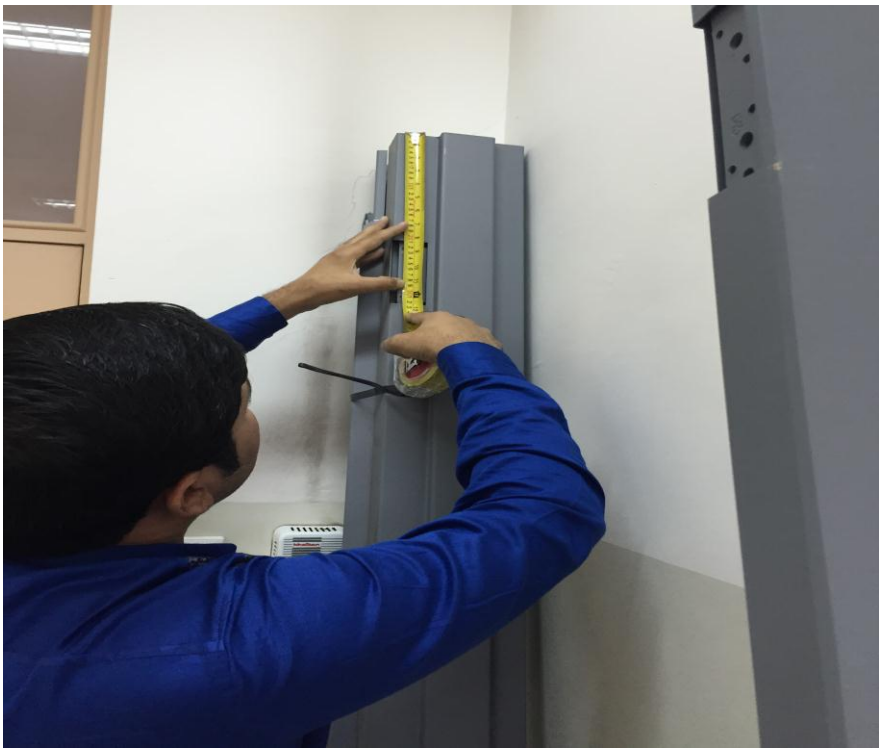


Photograph-3: Hollow metal door thickness measurement by

Tt QA Engineer.

Photograph-4: Fire Door frame labelled with UL Standard stamp.

Photograph-5: Fire door frame marked with UL Label.



Photograph-6: Measuring hinge locations of fire door frame to confirm it meets drawing specifications.

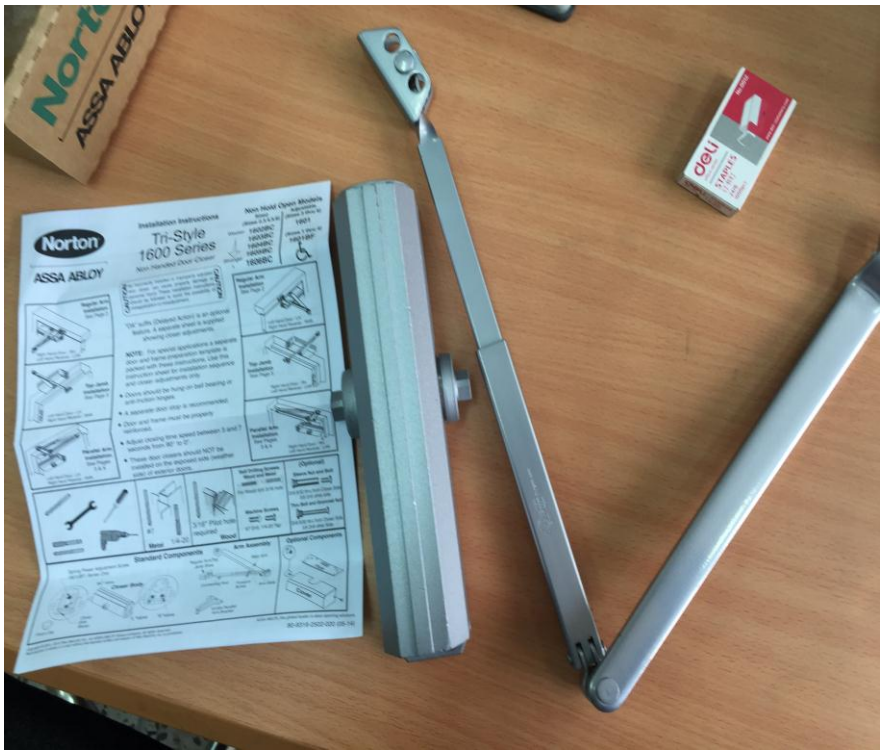
Photograph-7: Fire door Frame thickness measurement by Tt QA Engineer.

Photograph-8: Fire door Vision Lite frame width measurement by

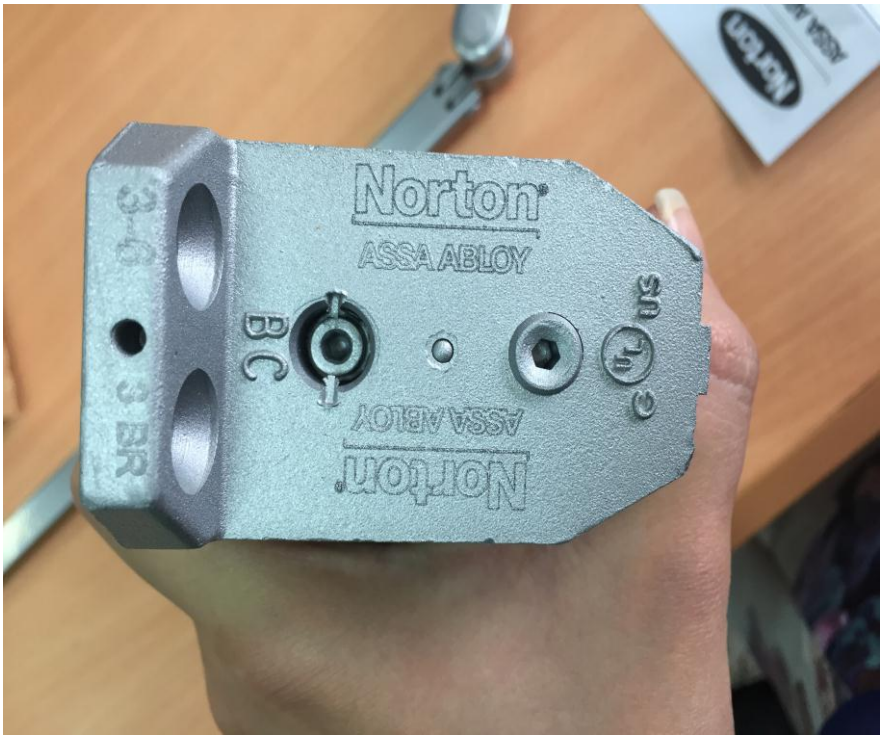
Tt QA engineer.

Photograph-8: Fire door Vision Lite frame height measurement by

Tt QA engineer.



Photograph-9: Fire door closure component set showing UL Label.



Photograph-9: UL labeled closure.

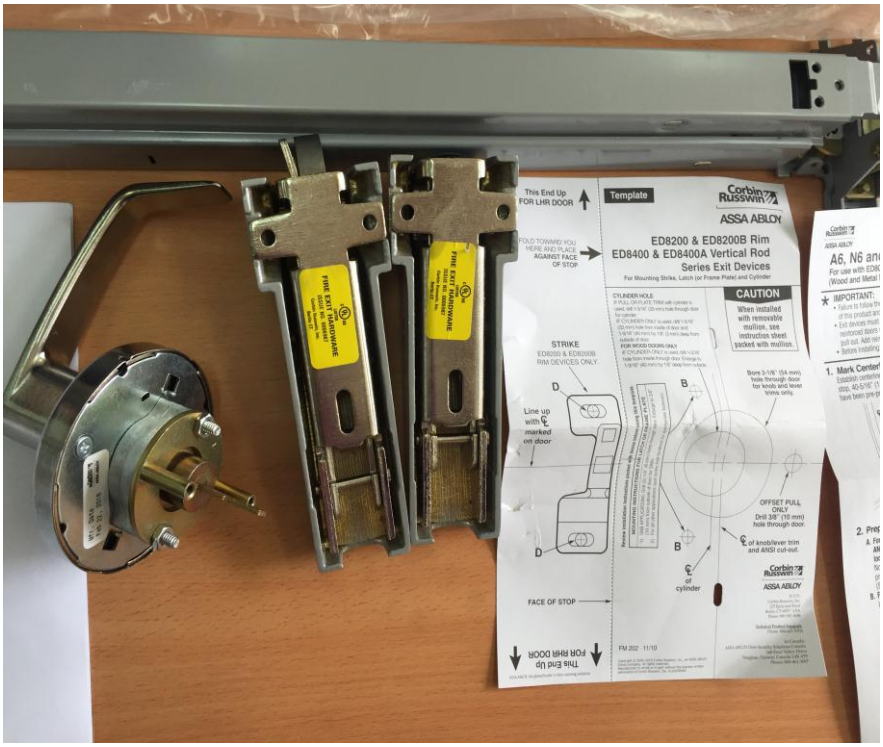
Photograph-10: Door bottom shoe and perimeter gasket.

Photograph- 11: Perimeter gasket for fire doors.

Photograph-12: Heavy weight hinges for fire door showing UL Label.

Photograph-13: Fasteners for heavy weight hinges.

Photograph-14: Heavy Weight Hinges showing UL Standard mark.



Photograph-15: Fire door handle set and panic hardware.

Photograph 16: Fire doors panels stored in yard.

Photograph-17: Packed glass Vision Lite/Glass that was not checked because they were packed.

Photograph-18: Work Zone signs for student's information and safety.